

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-37. Cancelled.

38. (New) A method for improving database searching using a user profile created during a learning phase,

said learning phase comprising:

accessing a predetermined set of documents containing a plurality of keywords;

analyzing said documents and identifying, according to predetermined rules, groups of related keywords therein;

assigning attributes indicative of relatedness to said groups of related keywords; and

storing said relatedness attributes in a user profile means as a user profile; said method for improving database searching comprising:

receiving a search query comprising one or more search keywords from a user;

accessing said user profile means and identifying therefrom, for each search keyword, potentially-related keywords to the user;

receiving information from the user confirming that any potentially-related keywords are considered to be related keywords;

in the event that any potentially-related keywords are confirmed by the user to be related keywords, incorporating such potentially-related keywords as keywords in an improved search query; and

submitting the improved search query to a search engine.

39. (New) A method according to claim 38 further comprising:

updating the set of documents by adding documents to or subtracting documents from the set;

analyzing the updated set of documents and identifying existing and additional groups of related keywords therein, according to predetermined rules;

assigning attributes indicative of relatedness to said additional groups of related keywords;

updating the relatedness attributes of said existing groups of related keywords; and

updating the user profile in accordance with the relatedness attributes of said existing and additional groups of related keywords.

40. (New) A method according to claim 39 wherein the step of updating the set of documents comprises updating the set of documents in response to user input.

41. (New) A method according to claim 39 wherein the step of updating the set of documents comprises adding new documents to the set of documents in the event of user input confirming that said new documents are of interest to the user.

42. (New) A method according to claim 39 wherein the step of updating the set of documents comprises updating the set of documents on the basis of documents viewed by the user following receipt of a response from a search engine to a search query.

43. (New) A method according to claim 38 wherein groups containing pairs of related keywords are identified.

44. (New) A method according to claim 38 wherein related keywords are identified from the set of documents by means of a self-organizing map algorithm.

45. (New) A method according to claim 38 wherein the step of assigning attributes comprises assigning importance values indicating the statistical significance of related keywords in the set of documents.

46. (New) A method according to claim 38 wherein the step of assigning attributes comprises assigning life-span values indicating the expected remaining period of time of relatedness between keywords in the set of documents.

47. (New) A method according to claim 46 wherein the step of updating the relatedness attributes comprises a step of systematically decreasing the life-span values over time.

48. (New) A method according to claim 46 wherein said relatedness attributes are stored in the form of fuzzy sets.

49. (New) Apparatus for improving database searching using a user profile created during a learning phase, said apparatus comprising:

means for accessing a predetermined set of documents containing a plurality of keywords during a learning phase;

analyzing means arranged to analyze said documents and to identify, according to predetermined rules, groups of related keywords therein;

attribute assigning means arranged to assign attributes indicative of relatedness to said groups of related keywords; and

user profile storing means arranged to store said relatedness attributes in a user profile means as a user profile;

means for receiving a search query comprising one or more search keywords from a user;

means arranged to access said user profile means and to identify therefrom, for each search keyword, potentially-related keywords according to predetermined criteria;

means arranged to provide said potentially-related keywords to the user;

means for receiving information from the user confirming that any potentially-related keywords are considered to be related keywords;

means arranged to incorporate such potentially-related keywords in an improved search query in the event that they are confirmed by the user to be related keywords; and

means for submitting the improved search query to a search engine.

50. (New) Apparatus according to claim 49 wherein the predetermined set of documents is a set of documents expected to reflect the interests of a specific user.

51. (New) Apparatus according to claim 49 wherein the predetermined set of documents is a set of documents derived from a set of documents previously viewed by a specific user.

52. (New) Apparatus according to claim 49 further comprising:
document updating means arranged to update the set of documents by adding documents to or subtracting documents from the set during an updating phase;
identifying means arranged to analyze the updated set of documents and to identify existing and additional groups of related keywords therein, according to predetermined rules;
means arranged to assign attributes indicative of relatedness to said additional groups of related keywords;
user profile updating means arranged to update the user profile in accordance with the relatedness attributes of said existing and additional groups of related keywords.

53. (New) Apparatus according to claim 52 wherein the document updating means is arranged to update the set of documents in response to user input.

54. (New) Apparatus according to claim 52 wherein the document updating means is arranged to add new documents to the set of documents in the event of user input confirming that said new documents are of interest to the user.

55. (New) Apparatus according to claim 52 wherein said document updating means is arranged to update the set of documents on the basis of documents viewed by

the user following receipt of a response from a search engine to a search query.

56. (New) Apparatus according to claim 49 wherein the analyzing means comprises means for identifying groups containing pairs of related keywords.

57. (New) Apparatus according to claim 49 wherein the analyzing means comprises means for identifying related keywords from the set of documents by means of a self-organizing map algorithm.

58. (New) Apparatus according to claim 49 wherein the attribute assigning means comprises importance value assigning means for assigning importance values indicating the statistical significance of related keywords in the set of documents.

59. (New) Apparatus according to claim 49 wherein the attribute assigning means comprises means for assigning life-span values indicating the expected remaining period of time of relatedness between keywords in the set of documents.

60. (New) Apparatus according to claim 59 wherein the user profile storing means is arranged to store said relatedness attributes in the form of fuzzy sets.